Correspondence

Br Heart J 1983; **49**: 403–4

Thomas Lewis—the early years

Sir,

We read with great interest and enjoyment the editorial "Thomas Lewis—the early years" by A Hollman (*Br Heart J* 1981;**46**:233–44). We were particularly intrigued by a statement on page 235 which is quoted below.

"A paper in 1909 with the promising title "Irregular action of the heart in mitral stenosis . . ." turns out to be a disappointment. He (Lewis) had a patient with intermittent slow heart action in which atrial activity is shown in the phlebogram but in whom the presystolic murmur has disappeared, and he reaches the extraordinary conclusion that this must be because the right atrium is beating while the left one is paralysed."

The obvious implication is that Lewis has reached a rather fanciful conclusion. Recently, however, the phenomenon of sinus rhythm in the right atrium with electrical inactivity (paralysis) of the left atrium has been well documented. Olsson *et al.*[1] have described 23 such cases and collected a further 22 cases from the published reports. In their series the majority of patients had longstanding severe rheumatic mitral stenosis and had unexpectedly reverted from chronic atrial fibrillation to sinus rhythm, often with low voltage P waves and first degree heart block. Left atrial inertia was diagnosed on the basis of phonocardiograms, apexcardiograms, echocardiograms, and left atrial pressure recordings. Severe degeneration and fibrosis of the left atrium was advanced as the cause of the left atrial inertia.

In view of the report by Olsson *et al.*, we wondered if Sir Thomas Lewis may have been describing a similar phenomenon. In his original report Lewis[2] described a patient with rheumatic mitral stenosis in whom a previously documented presystolic murmur and thrill had disappeared despite the presence of sinus rhythm. Absence of atrial activity on a "prominent apexcardiogram" was also taken as evidence of left atrial paralysis. No electrocardiographic recordings are provided but a jugular venous recording (reproduced in the Fig.) clearly shows right atrial activity with a prolonged a to c interval. An alternate explanation of junctional rhythm with a prolonged c to a interval is less likely, particularly as other venous recordings from the same patient show junctional extrasystoles with a short c to a interval.

The patient was on digoxin and subsequently developed an irregular pulse. Though the main concern of the paper was the analysis of the pulse irregularity, Lewis makes the following comments. "Now while paralysis of the left auricle in mitral stenosis cannot be regarded as a new observation, yet the absence of its contraction at the usual instant in the cardiac cycle in the presence of the auricular type of venous pulse, has never, so far as the writer is aware, been placed on record. The facts allow of but one conclusion, namely, that while the right auricle was active and contracting at the usual instant in the cardiac cycle the left auricle was paralysed."

Rather than reaching an "extraordinary conclusion", we believe that Sir Thomas Lewis should be credited with the first description of an unusual but distinctive syndrome which only now is receiving wider recognition.

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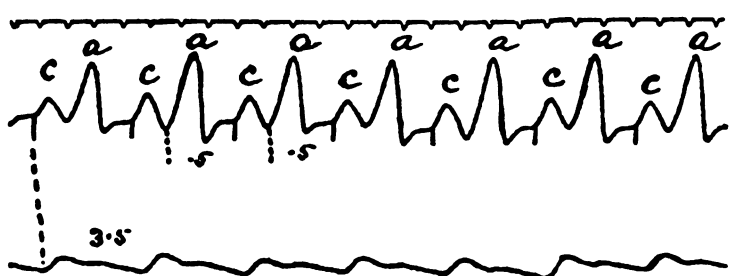

Fig. *Jugular venous recording reproduced from Figure 6 of Lewis's original paper.*[2]

References

1 Olsson SB, Örndahl G, Enestrom S, *et al.* Spontaneous reversion from long-lasting atrial fibrillation to sinus rhythm. *Acta Med Scand* 1980; 207: 5–20.
2 Lewis T. Irregular action of the heart in mitral stenosis: the inception of ventricular rhythm etc. *Q J Med* 1909; 2: 356–67.

This letter was shown to Dr Hollman who replies as follows:

Sir,
Naturally, I am delighted to acknowledge that my interpretation of Lewis's conclusion was wrong. I had forgotten the work of Ikram, Nixon, and Arcan[1] who showed in 1967 that left atrial systole could be absent after atrial fibrillation was converted to sinus rhythm by DC shock. Most of their patients had mitral valve disease. Their study was based on recordings of the apexcardiogram and the jugular phlebogram, thus unknowingly using the same method as Lewis. I would like to thank Dr Harper and Dr Pitt very warmly for their important contribution to the history of this previously overlooked and fascinating syndrome. Would they care to propose that it should be named after Thomas Lewis?

A Hollman,
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London.

Reference

1 Ikram H, Nixon PGF, Arcan T. Atrial function following cardioversion (letter). *Am Heart J* 1967; 74: 729–30.

Notice

British Cardiac Society

The Annual General Meeting for 1983 will take place in Bristol on 13 and 14 April, and the closing date for abstracts was 4 January 1983.

The Autumn Meeting will be held at Wembley on 21 and 22 November 1983, and the closing date for abstracts will be 28 July 1983.